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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,800	09/18/2003	Dennis L. Franz	FR19.P01	8999
21792	7590	01/04/2005	EXAMINER	
STRATTON BALLEW				GREENE JR, DANIEL LAWSON
213 S 12TH AVE				ART UNIT
YAKIMA, WA 98902				PAPER NUMBER
				3641

DATE MAILED: 01/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/666,800	FRANZ, DENNIS L. <i>30</i>	
	Examiner	Art Unit	
	Daniel L Greene Jr.	3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 25 October 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) 7-20 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-6 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 13 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1 through 6 in the reply filed on 10/25/2004 is acknowledged.
2. Claims 7-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/25/2004.
3. An office action based on claims 1-6 of the instant application follows.

Drawings

4. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application for the reasons listed below in addition to the attached PTO-892 dated 12/13/2004.
5. The drawings do not show every feature described within the specification and the relationships therein in order to facilitate understanding of the material in which applicant considers his invention. For example see page 57, line 6, wherein it states that charges (70) and fuel ring (85) are indicated in figure 32, which they are not. It is not clear how the entire fuel ring, which is supposed to be a ring of balanced charges in a specific location, is ejected out of the accumulator as a whole or as one charge at a time. Due to the length of the specification and the number of drawings, the examiner has only listed some discrepancies; the applicant is requested to perform a thorough review of both the specification and drawings to facilitate an appropriate correction to this objection.

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Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

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If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.
- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."

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- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual

Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

- (k) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

6. It is noted that the specification does not contain a Brief Summary of the Invention: See MPEP § 608.01(d), which is a brief summary or general statement of the invention as set forth in 37 CFR 1.73.

Objections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. 112, first paragraph, as failing to provide an adequate written description of the invention and as failing to adequately teach how to make and/or use the invention, i.e. failing to provide an enabling disclosure.

7. There is no reputable evidence of record to support any allegations or claims that the invention is capable of operating as indicated in the specification, that any allegations or claims of fusion or production of helium during fusion due to magnetic field induced nuclear and/or chemical reactions are valid and reproducible, nor that the invention as disclosed is capable of operating as indicated and capable of providing useful output.

Applicants specification contains assumptions and speculation as to how and in what manner, his invention will operate (see specification page 3, lines 18+, page 10 paragraph 3, etc). Indeed, applicant appears to be basing the operativeness of his invention on various approximations, estimations, assumptions, etc., set forth for example on said pages 3+ of the specification. It can be said that one could manipulate any number of approximations, estimations and assumptions to come up with a result, which would allegedly "work" in theory. However, applicant has presented no reputable factual evidence to support his assumptions and speculation, that his invention is operative. Without reputable evidence to the contrary, the accepted scientific community theory is presumed correct. The disclosure is insufficient in failing to set forth the underlying assumptions for applicant's theory as well as applicant's appraisal of the degree of validity of said assumptions.

As indicated throughout the disclosure, and in direct opposition of current laws of physics and thermodynamics, Applicant's invention is only based upon calculations and assumptions without producing a working model or providing sound proof that the proposed invention would actually work in the real world under real world actual conditions. See pages 2+, particularly page 3 lines 14+ wherein applicant states "It is tempting in the design and construction of a fusion system to disregard the principle of uncertainty with respect to particle velocity and position. To do this, within the parameters of the dimensions typically employed, is to disregard reality. Truth of reality in any such design must use the certainty characteristics of the nuclei, which are charge, frequency, spin and relative variable mass. A preliminary undertaking of the present invention is to re-examine, through documented physics experience, these conclusions that are assumed to be unalterable. If process can be made in this regard, controlled fusion may become feasible and beneficial." (Underlining added)

As presently set forth, the means for controlling: the trajectory of the charged particle, the spiral of the charged particle, magnetic field, the pulsed magnetic field, the nuclear magnetic resonance, the accumulator, reaction chamber, and generator are essentially black boxes with no description of the internals thereof. The disclosure is thus insufficient in failing to set forth in an adequate and sufficient fashion, a description of the internals of said units which would enable the devices to perform all of the actions, etc., that are disclosed and claimed. If applicant is of the opinion that there is a description in the prior art (in the form of literature, etc. having a date prior to the filing date of this application), of the internals of a means for controlling: the trajectory of the charged particle, the spiral of the charged particle, magnetic field, the pulsed magnetic field, the nuclear magnetic resonance, the accumulator, reaction chamber, and generator which can accomplish the disclosed and claimed actions, etc., copies of said

literature, etc., must be submitted for appropriate review by the Office. See in re Ghiron et al, 169 USPQ 723,727

Applicants use of vector analysis throughout the specification does not take into account ALL of the forces acting on the single atom including the manner in which all of the electric and magnetic fields interact with each other and said atom.

Applicant states that the total control of the fuel ring is paramount for ensuring the system functions, however the ability of the applicant to look inside and control the fuel ring and individual lithium atoms is questioned. (See page 90 lines 12-15)

Applicant's statement that the Coulomb repulsion of Lithium atoms is "cancelled" is a misnomer. As stated on page 10, lines 20 – 21, "the inward magnetic field force of charge rotation 63 'cancels' an outward Coulomb repulsion force 64." The Coulomb repulsion force is not so much "cancelled" as it is overcome by a magnetic field strong enough to do so. See page 9 lines 15-16.

There is no adequate description nor enabling disclosure of how and in what manner, one can control the Lithium fusion reaction to produce only Helium atoms without any other byproducts.

The specification is insufficient in disclosing exactly where the actual fusion reaction occurs. Fusion is assumed to occur in a certain area, however applicant states it may occur sporadically in other areas.

There is no adequate description nor enabling disclosure of how and in what manner, one can prevent the central conductor from vaporizing or melting since it is located directly in the center of the supposed fusion location. (Page 89, line 10)

The specification is insufficient in how and in what manner, the fusion products affect the magnetic field since each of said generated isotopes carries its own electrical charge and magnetic field.

There is no adequate description nor enabling disclosure of a specific operative embodiment of the invention, including: vessel, electrodes, generator, etc., required for one of ordinary skill in the art to make and/or use the invention.

There is no adequate description nor enabling disclosure of the parameters of a specific operative embodiments of the invention, including: the exact size, dimensions and composition (including degree of purity and the impurities present) of each the materials utilized in the operation of the applicants invention; applied current and voltage to produce plasma, etc.; assembly of apparatus (i.e. vacuum chamber, shielding, etc.); etc.

It is noted that the specification appears to set forth some parameters (see pages 8+); however, the specification does not set forth an example of an operative embodiment wherein specific values for each of the parameters are recited.

Due to the volumous specification, the preceding objections may only be exemplary.

It is thus considered that the examiner (for the reasons set forth above) has set forth a reasonable and sufficient basis for challenging the adequacy of the disclosure. The statute requires the applicant itself to inform, not to direct others to find out for themselves; *In re Gardner et al*, 166 U.S.P.Q. 138, *In re Scarbrough*, 182 U.S.P.Q. 298. Note that the disclosure must enable a person skilled in the art to practice the invention without having to design structure not shown to be readily available in the art; *In re Hirsch*, 131 U.S.P.Q. 198.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1 - 6 are rejected under 35 U.S.C. 101 because the claimed invention as disclosed is inoperative and therefore lacks utility.

The reasons that the inventions as disclosed is inoperative are the same as the reasons set forth in section 7 above as to why the specification is objected to and the reasons set forth in section 7 above are accordingly incorporated herein.

There is no reputable evidence of record to indicate the invention has been reduced to the point of providing in current available form, an operative fusion system. The invention is not considered as meeting the requirements of 35 U.S.C. 101 as being "useful".

The applicant at best has set forth what may be considered a concept or an object of scientific research. However, it has been held that such does not present a utility within the meaning of 35 U.S.C. 101. See *Brenner v. Manson*, 148 U.S.P.Q. 689.

Additionally, it is well established that where as here, the utility of the claimed invention is based upon allegations that border on the incredible or allegations that would not be readily accepted by a substantial portion of the scientific community, sufficient substantiating evidence of operability must be submitted by applicant. Note *In re Houghton*, 167 U.S.P.Q. 687 (CCPA 1970); *In re Ferens*, 163 U.S.P.Q. 609 (CCPA 1969); *Puharich v. Brenner*, 162 U.S.P.Q. 136 (CA DC 1969); *In re Pottier*, 152 U.S.P.Q. 407 (CCPA 1967); *In re Ruskin*, 148 U.S.P.Q. 221 (CCPA 1966); *In re Citron*, 139 U.S.P.Q. 516 (CCPA 1963); and *In re Novak*, 134 U.S.P.Q. 335 (CCPA 1962).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. **Claims 1 - 6 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.** The reasons that the inventions as disclosed are not enabling are the same as the reasons set forth in section 7 above as to why the specification is objected to and the reasons set forth in section 7 above are exemplarily accordingly incorporated herein.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

10. **Claims 1 - 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

With regard to claims 1 – 6, the physical features or structure in which the applicant regards as his invention, are not recited within the claims. Applicant has not made statements of structures, only how Applicant wants things to work. Claims expressing functions without a means to carry them out are vague and indefinite. See

MPEP § 2114 and 2115. The following are exemplary of the most pressing issues at hand.

Claim 1 is vague and indefinite in defining;

- a. how and in what manner the magnetic field forms the reaction chamber,
- b. how and in what manner the fuel ring rotates with respect to the controlled trajectory of the charged particle, and
- c. how and in what manner the charged particle spiral trajectory is controlled.
- d. how and in what manner one charged particle can constitute a fuel ring

Claims 2-6 are vague and indefinite for being dependant on claim 1

Claim 2 is vague and indefinite in defining;

- a. how and in what manner the magnetic field can exert a pulsed and a constant force of origin and produce the effects as disclosed and claimed,
- b. how and in what manner the nuclear magnetic resonant control of the charged particle is attained.
- c. what a "constant origin" is, comes from or how it's made.

Claim 3 is vague and indefinite in defining how and in what manner the magnetic field forms a plurality of equidistant nodes including ONLY ONE of the charged particles. In addition, the term "particles" lacks antecedent basis as claim one recites only "a" and "the" charged particle indicating only one charged particle exists.

Claim 4 is vague and indefinite in defining how and in what manner the magnetic fields include a vertical conductor along the center of the nuclear reaction chamber. In addition, "the nuclear reaction chamber" recited lacks antecedent basis.

Claim 5 is vague and indefinite in defining how and in what manner the position of the charged particle can be describable by a wave function, including a guiding center approximating the spiral path trajectory.

Claim 6 is vague and indefinite in defining how and in what manner the accumulator regulates feeding charged particles into the fuel ring and controls the fusion reaction rate.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 - 6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent 5,773,919 to Seward

As best as can be understood because of the indefiniteness as discussed above, Seward discloses a system (100) comprising: a fuel ring ((118) and/or (32)), the fuel ring including a charged particle, the charged particle having a controlled spiral trajectory, the fuel ring rotational with respect to the controlled trajectory of the charged particle; the controlled spiral trajectory of the charged particle within the fuel ring described by a Larmor radius; the controlled spiral trajectory of the charged particle bounded within a

magnetic field; and a reaction chamber formed by the magnetic field (10) (underlining provided to show structure), in Figures 1 – 6, 8, 10-12, 14-15, 23 and 25, column 1 lines 24-27 and 45+, column 3 lines 46+, column 4 lines 1-18 and 42-55, column 5 lines 60+, column 6 lines 1-3, column 9 lines 44+, column 10 lines 1-10, and claims 21-27, 37-38, and 40-42.

NOTE: Applicant is advised that parts of the claims which are not specifically addressed or reproduced within this office action have been omitted because statements as to possible or future acts or to how the charged particles are desired to behave are essentially method limitations or statements of intended or desired use and do not serve to patentable distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP 2114, which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647

Claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v Bausch & Lomb Inc., 15 USPQ2d 1525, 1528

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Seward further discloses claim 2, wherein the magnetic field exerts a force of constant origin on the charged particle, and the magnetic field exerts a pulsed force on the charged particle in the rejection of corresponding parts above as well as column 7 lines 21-46 wherein it is understood that the restoring force is only required when ions move above or below orbit, which is thus a pulsed force. See NOTE above.

Seward further discloses claim 3, wherein the magnetic field forms a plurality of equidistant nodes, each equidistant node including one of the charged particles in the rejection of corresponding parts above, wherein it is understood that each turn of wire (111) will have an associated electromagnetic field (node) associated with it and according to Fig. 15, the plurality of nodes are equidistant

Seward further discloses claim 4, wherein the sum of magnetic fields includes a conductor (33) along the center of the reaction chamber in the rejection of corresponding parts above. See Figures 4 and 5.

Seward further discloses claim 5, wherein the Larmor radius describes a spiral path trajectory for the charged particle; the position of the charged particle describable by a wave function; the wave function includes a guiding center; and the guiding center approximates the spiral path trajectory; and the fuel ring contains the charged particle in the rejection of corresponding parts above.

Applicant is reminded that advised that statements of possible or future acts as to how the charged particle behaves are essentially method limitations or statements of intended or desired use and do not serve to patentable distinguish the claimed structure over that of the reference, SEE NOTE ABOVE.

Seward further discloses claim 6, wherein the fuel ring includes a plurality of charged particles; the plurality of charged particles in an accumulator; in the rejection of corresponding parts above as well as Figure 25, wherein it is understood that the accumulator "counts" charged particles, and continues to add charged particles until the number of charged particles inside the accumulator is equal to the number of charged particles outside the accumulator in order to neutralize the total charge and maintain toroid containment.

Applicant is advised that parts of the claims which are not specifically addressed or reproduced within this office action have been omitted because statements of possible or future acts as to how the accumulator behaves are essentially method limitations or statements of intended or desired use and do not serve to patentable distinguish the claimed structure over that of the reference, SEE NOTE ABOVE.

Claims 1 – 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,339,336 to Sudan.

NOTE: Applicant is advised that parts of the claims which are not specifically addressed or reproduced within this office action have been omitted because statements as to possible or future acts are essentially method limitations or statements of intended or desired use and do not serve to patentable distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 152 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP 2114, which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647

Claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v Bausch & Lomb Inc., 15 USPQ2d 1525, 1528

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

As best as can be understood because of the indefiniteness as discussed above, Sudan discloses a system for a fusion reactor comprising: a fuel ring (26), the fuel ring including a charged particle, the charged particle having a controlled spiral trajectory, the fuel ring rotational with respect to the controlled trajectory of the charged particle; the controlled spiral trajectory of the charged particle within the fuel ring described by a Larmor radius; the controlled spiral trajectory of the charged particle bounded within a magnetic field; and a reaction chamber (52) formed by the magnetic field, in Figures 1 – 6, column 1 lines 32-41 and 56-61, column 2 lines 50+, column 3 lines 46-62 and column 4 lines 17-28, 38-45 and 53-61.

Sudan further discloses claim 2, wherein the magnetic field exerts a force of constant origin on the charged particle, and the magnetic field exerts a pulsed force on the charged particle; and a nuclear magnetic resonant control of the charged particle within the reaction chamber provided by the combination of the force of constant origin

and the pulsed force in the rejection of corresponding parts above. See column 3 lines 46 – 62.

Sudan further discloses claim 3, wherein the magnetic field forms a plurality of equidistant nodes (52), each equidistant node including one of the charged particles in the rejection of corresponding parts above.

Sudan inherently discloses claim 5, wherein the Larmor radius describes a spiral path trajectory for the charged particle; the position of the charged particle describable by a wave function; the wave function includes a guiding center; and the guiding center approximates the spiral path trajectory; and the fuel ring contains the charged particle in the rejection of corresponding parts above.

11. Claims 1, 2, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 6,477,216 to Koloc.

NOTE: Applicant is advised that parts of the claims which are not specifically addressed or reproduced within this office action have been omitted because statements as to possible or future acts are essentially method limitations or statements of intended or desired use and do not serve to patentable distinguish the claimed structure over that of the reference. See *In re Pearson*, 181 USPQ; *In re Yanush*, 177 USPQ 705; *In re Finsterwalder*, 168 USPQ 530; *In re Casey*, 152 USPQ 235; *In re Otto*, 136 USPQ 458; *Ex parte Masham*, 2 USPQ 2nd 1647.

See MPEP 2114, which states:

A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus

teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647

Claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531

Apparatus claims cover what a device is, not what a device does. Hewlett-Packard Co. v Bausch & Lomb Inc., 15 USPQ2d 1525, 1528

As set forth in MPEP 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

As best as can be understood because of the indefiniteness as discussed above, Koloc discloses a system for a fusion reactor comprising: a fuel ring (36), the fuel ring including a charged particle, the charged particle having a controlled spiral trajectory, the fuel ring rotational with respect to the controlled trajectory of the charged particle; the controlled spiral trajectory of the charged particle within the fuel ring described by a Larmor radius; the controlled spiral trajectory of the charged particle bounded within a magnetic field (34); and a reaction chamber (28) formed by the magnetic field, in Figures 1 – 4, column 1 lines 25+

Koloc further discloses claim 2, wherein the magnetic field exerts a force of constant origin on the charged particle, and the magnetic field exerts a pulsed force on the charged particle; and a nuclear magnetic resonant control of the charged particle within the reaction chamber provided by the combination of the force of constant origin and the pulsed force in the rejection of corresponding parts above.

Koloc further discloses claim 4, wherein the sum of magnetic fields includes a vertical conductor (44) along the center of the nuclear reaction chamber (28) in the rejection of corresponding parts above. See Figure 2.

Koloc inherently discloses claim 5, wherein the Larmor radius describes a spiral path trajectory for the charged particle; the position of the charged particle is describable by a wave function; the wave function includes a guiding center; and the guiding center approximates the spiral path trajectory; and the fuel ring contains the charged particle in the rejection of corresponding parts above.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure as showing the current state of the art in Magnetically Confined Nuclear Fusion reactor structure and methods.

13. Examiner's Note: Examiner has cited particular columns and line numbers in the references as applied to the claims for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

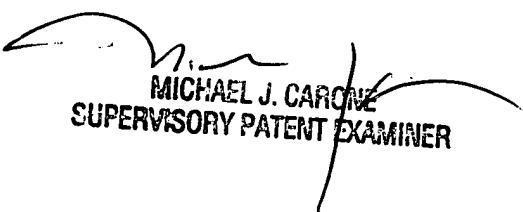
14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel L Greene Jr. whose telephone number is (703) 605-1210. The examiner can normally be reached on Mon-Fri 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael J Carone can be reached on (703) 306-4198. The fax phone

number for the organization where this application or proceeding is assigned is 703-872-9306.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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12/20/2004


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